SADPmini2

Portable Dewpoint Hygrometer

Features and Benefits

💧 Ultra-high capacitance aluminium oxide sensor delivers unsurpassed sensitivity, speed of response, accuracy, repeatability, stability, and long service life

💧 Unique Automatic Calibration (AutoCal) span correction feature

💧 Various dewpoint ranges available -110°C to 20°C

💧 Unique desiccant dry-down technology always shields the sensor from ambient air, reducing response time to minutes

💧 Colour graphical LCD with dual display of measuring units

💧 Integral calculator for display of dewpoints at pressure

💧 Intuitive and easily configurable user interface in ten languages

💧 Can connect wirelessly to a mobile device using Bluetooth or to a laptop using USB to view live display, analyse, and archive data on dedicated App.

💧 On-board data logging and screen capture

💧 Accuracy ±2 °C dewpoint

💧 Built to withstand demanding environments, IP66 / NEMA 4X rated

💧 Exceptional battery life, over 150 hours continuous use

💧 Supplied with a certificate of calibration traceable to National and International Humidity standards

Rugged, light weight IP66 construction makes the SADPmini2 the most reliable dewpoint hygrometer available for rapid spot checks of dewpoint or trace moisture content in most gases and compressed air. The ultra-high capacitance sensor gives unsurpassed sensitivity, speed of response, repeatability and stability.

The full colour LCD display shows the measurement in two, independently selectable, units simultaneously, together with a linear analogue scale for the main units. A single button press changes the display to a real time graph of the readings in the main units.

The optional Portable Sample System (PSS) is available for regulating and conditioning pressurised gas samples.

SADPmini2 Technical Data

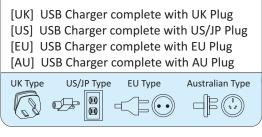|	
Sensing Element	Ultra-High Capacitance Aluminium Oxide
Power Supply	Rechargeable Li-ion battery. Over 150 hours of continuous use from a full charge
Dewpoint Ranges	Range -110 °C to -20 °C Dewpoint Range -100 °C to 0 °C Dewpoint Range -80 °C to +20 °C Dewpoint
Electromagnetic Compatibility (EMC)	Complies with BS EN ICE 61326-1
Accuracy	± 2 °C dewpoint (NPL traceable for range -90 °C to +20 °C)
Repeatability	Better than ±0.3 °C dewpoint
Operating Pressure	Atmospheric pressure
Operating Temperature (Ambient and Process)	-20 °C to 50 °C
Operating Humidity (Ambient)	Maximum 95% Non-Condensing
Storage Temperature and Humidity	-20 °C to 50 °C Maximum 95% Non-Condensing

Field Calibration	AutoCal span check and correction are performed by following simple on-screen instructions. We recommend AutoCal is repeated every 2-3 months
Factory Calibration	Supplied with a calibration certificate traceable to National and International Humidity standards. We recommend annual laboratory calibration
Sample Flow Rate	Flow independent, ideally 5 to 15 Litres per minute, maximum 20 L/min
Weight	1.4 kg
Dimensions	Height 215 mm, Width 108 mm, Depth 124 mm
Ingress Protection	IP66 / NEMA 4X
Manufacturer's Warranty	12 months in case of defective parts or faulty workmanship

108mm (4.3")

258mm (10.2")

215mm (8.5")

Colour Graphical LCD

Desiccant Head raised and in the READ position

USB Connection & Charging

Sample Connection (Compression Type Shown)

Fir-Tree Connection

Anti-slip Hand Strap

Navigation Keypad

How to Order

SADPmini2 - [XX] - [X] - [X] - [X] - [XX] - [CC]

RANGE IN DEWPOINT:
[SR] -110 °C to -20 °C (-166 °F to -4 °F)
[PL] -100 °C to 0 °C (-148 °F to +32 °F)
[BL] -80 °C to +20 °C (-112 °F to +68 °F)

[B] Basic - No Communication or logging
[L] With Logging and Bluetooth Communication

SAMPLE CONNECTION
[F] Fir Tree Fitting
[4] 0.25" (1/4") - SS Compression Fitting
[6] 6 mm - SS Compression Fitting
[8] 0.125" (1/8") - SS Compression Fitting

SAMPLE CONNECTION
[F] Fir Tree Fitting
[4] 0.25" (1/4") - SS Compression Fitting
[6] 6 mm - SS Compression Fitting
[8] 0.125" (1/8") - SS Compression Fitting

CARRY CASE (Recommended/Optional):
[CC] Carry Case

MAINS/AC PLUG TYPE
[UK] USB Charger complete with UK Plug
[US] USB Charger complete with US/JP Plug
[EU] USB Charger complete with EU Plug
[AU] USB Charger complete with AU Plug

UK Type   US/JP Type   EU Type   Australian Type

ORDER EXAMPLE:
To order this instrument with a range of -100 °C to 0 °C dewpoint, with logging/bluetooth, 6mm compression fitting (LEFT), Fir Tree Fitting (Right), an EU AC power plug, and Carry Case, the order code is:-
SADPmini2 - [PL]-[L]-[6]-[F]-[EU]-[CC]

Included Accessories

Basic Type
2m PTFE Sample Pipe
Pipe Fittings
Mains/USB Battery Charger & Cable
Adjustable Carrying Strap
Pressure Dewpoint Calculator Wheel

Logging Type
As Basic Type, plus logging

Optional Accessories

Carry Case (*Recommended*) with adjustable shoulder strap
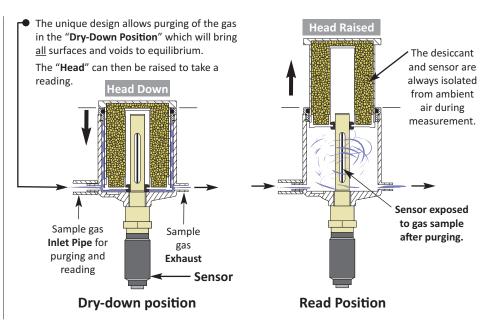
Bluetooth Printer

Portable Sample System

Desiccant Dry Down Technology

The Desiccant Head Assembly

Keeping the sensor dry between tests ensures that the **SADPmini2** is always ready to carry out rapid spot checks. The unique design of the Desiccant Head achieves this by surrounding the sensor with desiccant before the head is raised for sampling.
At no time is the sensor allowed to come into contact with ambient air. The chamber is also designed so that the void space and chamber wall surfaces are purged with sample gas, before exposure of the sensor, so giving faster, more accurate and reliable results.

The unique design allows purging of the gas in the "**Dry-Down Position**" which will bring all surfaces and voids to equilibrium.

The "**Head**" can then be raised to take a reading.

Head Down

Sample gas **Inlet Pipe** for purging and reading

Sample gas **Exhaust**

Sensor

Dry-down position

Head Raised

The desiccant and sensor are always isolated from ambient air during measurement.

Sensor exposed to gas sample after purging.

Read Position

Corrosive Gases: The Sensor should not be exposed to corrosive gases (or corrosive contaminants in the gas sample) as these can chemically attack the sensor, impairing calibration accuracy and/or damaging it beyond economic repair. Examples of such gases are mercury (Hg), ammonia (NH_3), chlorine (Cl_2) etc. Strong oxidising agents such as ozone (O_3) should also be prevented from coming into contact with the sensor.